REMARKS/ARGUMENTS

In response to the Restriction Requirement dated June 25, 2003 (the "Requirement"), Applicants elect the invention of Group I, with traverse. As shown below, the Groups should not be restricted under the unity of invention rules. The restriction of Groups I and II, in particular, cannot be supported.

The Requirement's entire justification for restricting Groups I and II reads as follows: "The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Two different products are presented in Groups I and II. These two products do not share a common core structure nor common property or activity. The products listed in Groups I and II are directed to a family of products and a family of nucleic acids such that there is no one to one correspondence (see Example 17 of PCT Administrative Instruction, Annex B)." Action, at page 2.

As an initial matter, the Requirement asserts that the inventions listed as Groups I-IV (and therefore necessarily Groups I and II) lack the same technical feature, on the grounds that they are two different products that, the Requirement alleges, do not share a common core structure, property, or activity. This is not, however, the standard for determining unity of invention set forth in PCT Rule 13.

The PCT unity of invention rule, Rule 13, contemplates that an application may relate to one invention only, or may relate to a group of inventions "so linked as to form a single general inventive concept." PCT Rule 13.1 (Rule 13.1 is set forth in the MPEP (8th Ed., Feb. 2003 rev) at page T-48). Under PCT Rule 13.2, where an application claims a group of inventions, the inquiry to be made is whether the inventions involve "one or more of the same or corresponding technical features." Rule 13.2 continues as follows: "The expression 'special technical features' shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art." Rule 13.2, MPEP at page T-48 (emphasis added).

As noted, the Requirement concludes that Groups I and II do not share the same technical feature because they allegedly do not share a "common core, structure, or property." Markedly lacking from this statement is any consideration of what contribution, considered as a whole, the claimed inventions make over the prior art, as is required for even a threshold determination of whether two inventions share unity of invention under Rule 13.2.

Claim 1 of the subject application reads as follows:

> 1. A polypeptide comprising a mutated antibody heavy chain variable region or light chain variable region, the polypeptide having at least 5 times higher binding affinity for an antigen than does a parental antibody, the polypeptide having a sequence that differs from the parental antibody by an amino acid substitution of at least one amino acid in a complementarity determining region (CDR), the amino acid encoded by a codon that comprises a nucleotide belonging to a hot spot motif selected from AGY or RGYW, wherein R is A or G, Y is C or T and W is A or T.

An examination of this claim indicates that, on its face, the contribution it makes over the prior art is mutated antibody variable chains which have been mutated by amino acid substitutions in a CDR "hot spot" motif to increase affinity at least 5 times over the affinity of a parental antibody.

Claim 27 of the application reads as follows:

> 27. A nucleic acid molecule encoding a polypeptide comprising a mutated antibody heavy chain variable region or light chain variable region, the polypeptide having at least 5 times higher binding affinity for an antigen than does a parental antibody, the polypeptide having a sequence that differs from a parental antibody by an amino acid substitution of at least one amino acid in a complementarity determining region (CDR), the amino acid encoded by a codon that comprises a nucleotide belonging to a hot spot motif selected from AGY or RGYW, wherein R is A or G, Y is C or T and W is A or T.

An examination of this claim indicates that, on its face, it encompasses nucleic acids that encode peptides which are mutated antibody variable chains which have been mutated by amino acid substitutions in a CDR "hot spot" motif to increase affinity at least 5 times over the affinity of a parental antibody. In other words, both claims share the contribution over the

prior art and therefore share the same technical feature. Under PCT Rule 13.2, they therefore share unity of invention and should be considered together.

As noted above, the Requirement contends that the inventions do not share unity of invention because they constitute two products and: "The products listed in Groups I and II are directed to a family of products and a family of nucleic acids such that there is no one to one correspondence (see Example 17 of PCT Administrative Instruction, Annex B)." This is incorrect. A review of Annex B provides no support for ignoring unity of invention. And Example 17 of Annex B directly contradicts the Requirement's position. Example 17, in its entirety, reads as follows:

> Example 17
>
> Claim 1: Protein X
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> Claim 2: DNA sequence encoding protein X.
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> Expression of the DNA sequence in a host results in the production of a protein which is determined by the DNA sequence. The protein and the DNA sequence exhibit corresponding special technical features. Unity between claims 1 and 2 is accepted.

As in Example 17, claim 1 of the claims under examination claims polypeptides with certain features, and claim 27 claims a nucleic acid encoding the polypeptides. If the Requirement was correct that the protein and the nucleic acid were two "products," which provided a basis for finding they did not share the same technical feature, Example 17 could not reach the result that there was unity of invention between the claims. Thus, the first part of the Requirement's analysis fails.

The second part of the Requirement's analysis fares no better. According to the Requirement, there is no "one to one correspondence" between claim 1 and claim 27. But, like Example 17, expression of the nucleic acids of claim 27 results in the production of a protein which is determined by the DNA sequence, which is a protein of claim 1. And, as noted above, the protein and the nucleic acid sequence share the same technical feature. Under these circumstances, Example 17 indicates unity of invention should be found.

Finally, Applicants note that the European examiner handling the international search and the European examiner handling the preliminary examination of the underlying PCT

application considered all 50 claims in the application together. In other words, two European examiners, **applying the same PCT unity of invention rules to the same claims**, found all the claims to share unity of invention. The Requirement does not even acknowledge the difference in result, let alone set forth any explanation of why two European examiners, who are usually more experienced in applying unity of invention rules, were incorrect in finding unity of the invention applying the same rules to the same claims, while the Requirement's finding of lack of unity of the same claims is correct.

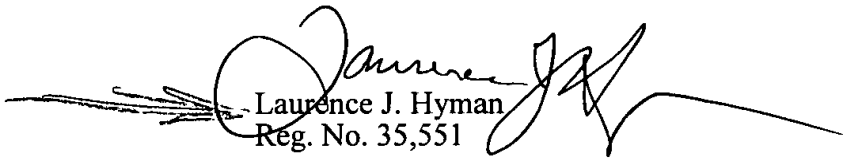
In sum, the Requirement applies an incorrect standard to arrive at an incorrect result. The Groups, and especially Groups I and II, should be rejoined.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



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